

Claims

- [1] 1. A display device comprising:
a plurality of pixels arranged in matrix, each pixel including a first set of three primary color subpixels and at least one of a second set of three primary color subpixels,
wherein the first and the second sets of three primary colors have a complementary relation.
- [2] 2. The device of claim 1, wherein the subpixels in each pixel are arranged in a 2×2 matrix.
- [3] 3. The device of claim 2, wherein the first set of three primary color subpixels includes red, green, and blue subpixels, and the second set of three primary color subpixels includes cyan, magenta, and yellow subpixels.
- [4] 4. The device of claim 3, wherein the red and the blue subpixels are arranged in a row and the red and the green subpixels are arranged in a column.
- [5] 5. A display device comprising:
a plurality of pixels arranged in matrix, each pixel including first to third pairs of subpixels,
wherein the first pair of subpixels are disposed adjacent to each other, the second and the third sets of subpixels are disposed opposite each other with respect to the first pair of subpixels, and the first to the third sets of subpixels include first-color subpixels and second-color subpixels.
- [6] 6. The device of claim 5, wherein each subpixel in the first pair of subpixels is triangular, and the first pair of subpixels form a diamond
- [7] 7. The device of claim 6, wherein a boundary between the first pair of subpixels extends in a row or column direction.
- [8] 8. The device of claim 7, wherein the first-color and the second-color subpixels have complementary relation.
- [9] 9. The device of claim 8, wherein the first-color subpixels include red, green, and blue subpixels and the second-color subpixels include cyan, magenta, and yellow subpixels.
- [10] 10. The device of claim 9, wherein the first-color subpixels include red, green, and blue subpixels and the second-color subpixels include cyan, white, and yellow subpixels.
- [11] 11. A display device comprising:

a matrix of pixels, each pixel including a pair of central subpixels adjacent to each other, a pair of first subpixels, and a pair of second subpixels, the pairs of first and second subpixels disposed in diagonals with respect to the central subpixels;

a plurality of gate lines extending in a row direction and transmitting gate signals; and

a plurality of data lines extending in a column direction and transmitting data signals,

wherein each subpixel includes a pixel electrode and a thin film transistor, the subpixels include first and second sets of three primary color subpixels, and the first and the second sets of three primary color subpixels have complementary relation.

- [12] 12. The device of claim 11, wherein each of the central subpixels is isosceles triangular and the central subpixels form a diamond
- [13] 13. The device of claim 12, wherein a boundary between the central subpixels extends in a row or column direction.
- [14] 14. The device of claim 11, wherein the first set of three primary color subpixels include red, green, and blue subpixels, and the second set of three primary color subpixels include cyan, magenta, and yellow subpixels.